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James G. Wohlford

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EXAMINER

AYRES, TIMOTHY MICHAEL

ART UNIT

PAPER NUMBER

3637

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

12/19/2006

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.



## **DETAILED ACTION**

### ***Specification***

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The terms "leading edge" and opposing trailing edge" are not defined in the specification though are shown and understood for examination purposes. .

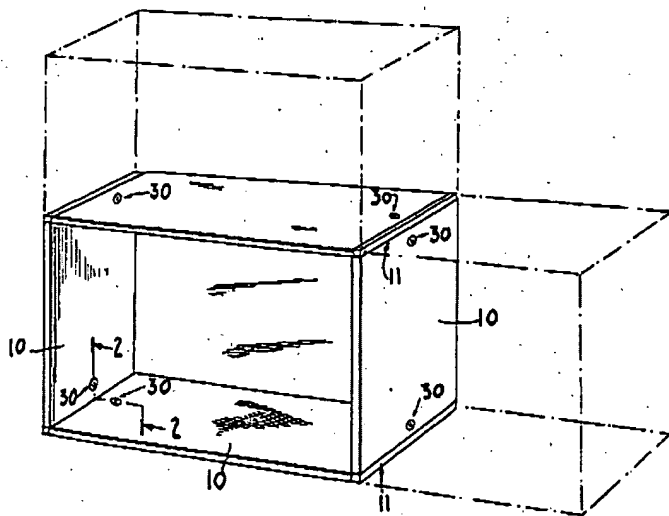
### ***Claim Rejections - 35 USC § 103***

2. Claims 26-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 2,967,747 to Bus in view of US Patent 4,490,064 to Ducharme and US Patent 6,161,262 to Pfister.

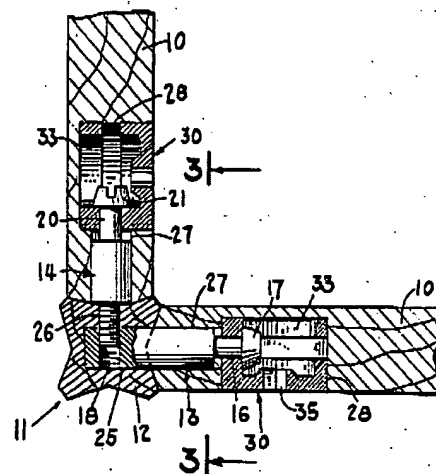
3. Bus '747 teaches a knockdown furniture connector system. Disclosed in figure 1 is a rectangular box using the connector system; the scope of the connector system implicitly goes beyond just a box and can be used for any sort of furniture including a home entertainment system (Col. 1, lines 37-41). The system includes a plurality of host structure (12) and a plurality of cross supports (10) held together with a plurality of fastening devices. The fastening devices are locking bodies (13,14), which are fastened to each other at their respective distal ends with an engagement member (18,23) inside slots (25,26) of the host structure (12). The proximal ends of the locking bodies (13,14) have a head (17,21) that connects to a cam (30) so that the cross support (10) and the

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host structure (12) are fastened together by rotating the cam (30) in a direction to cause a linear motion of the locking body (13,14) to draw the cross support (10) and host structure (12) together. (Col. 3, lines 50-75, Col. 4, lines 1-6). A central shaft (15,19) is on the locking body (13,14) between the head (17,21) and the engagement member (18,23). The locking body (13,14) and cam (30) are disposed in a locking body aperture (27) and a cam aperture (28). The cam (30) includes a cam opening (32). The edge of the cross support (10) engages the wall of the host structure (12) when the fastening device is secured. The cam (30) is embedded in the cross support (10) as seen in figures 1-3. The cross support (10) is a panel with a portion (13,14, 30) of the fasteners contained within.



Bus '747 Figure 1

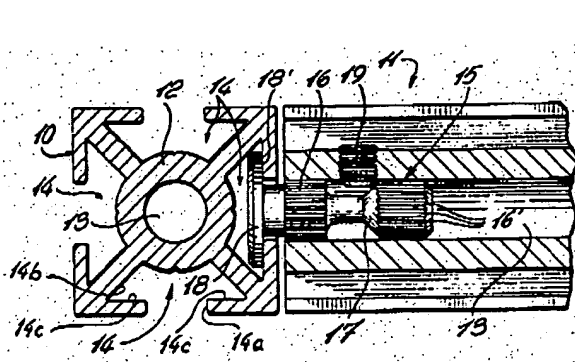


Bus '747 Figure 2

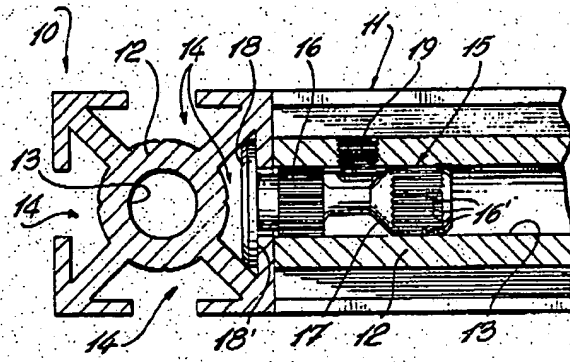
4. Bus '747 does not disclose expressly the host structure as a geometrically configured tube with the slot having a narrower outer portion and a wider inner portion

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on the face of the host structure and a ball as the head on the locking body. Ducharme '064 discloses a joint for a modular frame construction. A geometrically extruded tube (10) is the host structure and is fastened to the cross support (11) via a locking body (15). The locking body (15) has an engagement member (18) that fits in and is movable in the wider portion (14b) of slot (14) of the geometrically extruded tube (10) as seen in figure 2. The contact face (18') of the engagement member (18) engages the internal face (14c) of a narrow portion (14a) of the channel (14) as seen in figure 3 when a set screw (19) is tightened to act on a camming surface (17) of the locking body (15). At the time of the invention it would have been obvious for a person of ordinary skill in the art to replace the host structure of Bus's system with the host structure of Ducharme and replace the engagement member of the locking body of Bus with the engagement member of the locking body of Ducharme so the host structure does not require specially machined apertures and thereby reducing the cost. It would have been obvious for a person of ordinary skill in the art to modify Bus '747 by having the locking body with head element in a ball configuration, since the applicant has not disclosed that having the head element be a ball solves any stated problem or is for any particular purpose and it appears that the locking body would perform equally well with Bus' '747 head element since it is functionally equivalent and works equally well.



Ducharme '064 Figure 2



Ducharme '064 Figure 3

5. Bus in view of Ducharme does not expressly disclose the engagement member having a leading edge and a trailing edge with a cross sectional dimension that is selected to allow the engagement member to be engaged in the slot at any point along the length of the slot. Pfister teaches a clamp assembly (10A) that is fastened in a slot (86c). The clamp assembly has a disk head with a frustoconical section (124, 126) made of a leading edge and a trailing edge as seen in figure 8. The host structure (14) has a slot (86c) that is defined by radius guides (80b, 80c). At the time of the invention it would have been obvious for a person of ordinary skill in the art to modify the furniture system of Bus in view of Ducharme by adding radius guides and a frustoconical section to the disk head so that the disk head can be installed in mid-slot (Pfister '262, Col. 2, Lines 26-39).

### ***Response to Arguments***

6. Applicant's arguments with respect to the new novel subject have been considered but are moot in view of the new ground(s) of rejection. Pfister '262 teaches

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the new aspect that the engagement member is engagable in the slot at any point along the length of the structure. The applicant's specification admits that Pfister '262 teaches this on page 1, lines 25-29 and the discusses the differences of Pfister '262 to the present invention. Those differences are taught in the structure of the combination of Bus in view of Ducharme.

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

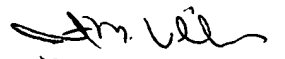
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy M. Ayres whose telephone number is (571) 272-8299. The examiner can normally be reached on MON-THU 8:00 - 5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lanna Mai can be reached on (571) 272-6867. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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TMA  
12/09/06



JANET M. WILKENS  
PRIMARY EXAMINER  
Art 3637